I. AMENDMENTS

Amendments to the Specification

Please amend the Specification as follows:

Please amend the Title as follows:

ELECTROLUMINESCENCE LIGHT EMITTING DISPLAY SYSTEM ~~AND ELECTROLUMINESCENCE LIGHT EMITTING SHEET~~ TO MAKE A PORTION OF AN ELECTROLUMINESCENCE LIGHT EMITTING LAYER, ON WHICH ELECTRICALLY CONDUCTIVE MATERIAL IS PLACED, EMIT LIGHT

Please replace the second full paragraph on page 1, beginning on line 12 and ending on line 24 as follows:

An electroluminescence, hereinafter, which may be referred to as "EL" ~~simply~~, material is known as one of light emitting materials. Various types of EL light emitting sheets have been developed and put to practical use. The EL light emitting sheet is generally formed by laminating a first electrode, a light-emitting layer, an insulating layer, i.e., a light reflecting layer, a second electrode and a protective layer, i.e., a top coating layer, in order. Generally, by applying an alternating voltage (AC voltage) between the ~~fist~~first electrode and the second electrode, a fluorescent material, i.e., EL light emitting elements, in the light-emitting layer emits light.

Please replace the paragraph beginning on page 1, line 25 and ending on page 2, line 15 as follows:

As another type of EL light emitting sheet, one having peculiar operation and effects is known (see, for example, ~~Patent Document 1:~~ Japanese Patent Laid-Open Publication No. Hei-8-153582~~)~~. The EL light emitting sheet is formed by laminating an electrode section, an insulating layer and a light-emitting layer in order. The electrode section includes a plurality of electrode pairs each of which ~~have~~has a first electrode and a second electrode, which are formed like a comb. Then, an electrically conductive material in arbitrary shape is formed on the light-emitting layer as a film and the film is dried to the formed as a display electrode. Thereby, the parts in the light-emitting layer on which the display electrode is formed as a film emit light. In the EL light emitting sheet, a display electrode having a shape corresponding to the taste of a user can be formed and then a desired light emission shape can be obtained.

Please replace the paragraph beginning on page 4, line 10 and ending on page 5, line 19 as follows:

When the gap between the first electrode and the second electrode is less than 0.2 mm, there is a large possibility that a light emission (spontaneous emission) which is not negligible is also created in ~~also~~ a region onto which no conductive material is placed. When the gap is more than 0.3 mm, particularly, in a case of placing a chart of a thin line, flecks of light emission stand up. ~~Under conditions, that is,~~Using an EL sheet with a light emitting region of 140mm x 92mm, starting voltage of 250V to 270V and current of 100mA to 130mA, luminance of emitted lights from two EL light emitting sheets which have gaps of 0.2mm and 0.15 mm, respectively, were compared. As a result, the luminance of emitted lights from the EL light emitting sheet having the gap of 0.2mm was 3±0.5 candela and that of 0.15 mm was 6±0.5 candela which was approximately twice that of 0.2mm gap case. Therefore, it is considered that when assuming a regular use condition in an ordinary room as an industrial product, the luminance of emitted light, of 3±0.5 candela which is obtained by the gap of 0.2mm is a lower limit. On the other hand, when the widths ~~sizes~~ of the first electrode and the second electrode themselves are less than 0.2 mm, there are problems that the luminance of emitted lights may be lowered and the productivity may deteriorate by bridge or disconnection, ~~occurred in~~due to mass production. When the widths ~~sizes~~ are more than 0.5 mm, there is a problem that in a case of placing a dot-shaped chart for light emission by using a pen for drawing a thin line, the probability of AC electric field formation with another electrode is lowered because the thin chart may be within the width of one electrode. When the widths ~~sizes~~ are not more than 0.5 mm, the probability of AC electric field formation with another electrode is increased because the probability of the placed dot-shaped chart being out of the one electrode is much larger than that of the chart being placed at the center of the one electrode.

Please replace the second full paragraph on page 6, beginning on line 4 and ending on line 7 as follows:

According to the EL light emitting display system, it is also possible to attach ~~also~~ a chart of a thin line or a dot-shaped chart thereon freely, to enable various changes of light emission.

Please replace the paragraph beginning on page 6, line 17 and ending on page 7, line 5 as follows:

In accordance with a second aspect of the present invention, the electroluminescence light emitting sheet comprises: a light-emitting layer containing electroluminescence light-

emitting elements therein; and an electrode section comprising a plurality of electrode pairs which ~~are~~is disposed with a predetermined arrangement, wherein each of the electrode pairs includes first and second electrodes which are electrically separated from each other with a spacing region and disposed in one surface side of the light-emitting layer with a predetermined arrangement, each width of the first and second electrodes is 0.2-0.5 mm and a width of the spacing region between the first and second electrodes is 0.2-0.3 mm.

Please replace the second full paragraph on page 9, beginning on line 12 and ending on line 18 as follows:

The base layer 11 is made of an insulating material such as polyethylene terephthalate (PET) or the like. The base layer 11 may be configured as a base film (substrate sheet). In this case, the base film is made of a transparent or opaque resin. ~~As the resin in this case, for example, PET is used.~~ The base layer 11 may be made of glass.

Please replace the first full paragraph on page 12, beginning on line 8 and ending on line 12 as follows:

The EL light-emitting layer 14 is made of organic or inorganic EL light-emitting material elements (fluorescent material) sealed with a sealing resin. The EL light-emitting material elements are fixed ~~with~~by being dispersed in a transparent resin binder.

Please replace the paragraph beginning on page 13, line 14 and ending on page 14, line 13 as follows:

As the top coat layer 15, the following resins can be used. That is, they are, for example, a fluorocarbon resin such as a 4-fluorinated ethylene resin, fluororubber and the like; a silicon resin such as silicon rubber and the like; a polyester resin; an urethane resin and the like. Since the main object of providing the top coat layer 15 is, as described above, to smooth the surface of the EL light-emitting layer 14 and to improve the removability of conductive material 30 ~~out of~~from the surface thereof, the thickness of the top coat layer 15 is ~~enough to be a degree which makes it possible~~chosen to attain ~~the~~this object. On the other hand, it is suitable that the top coat layer 15 is as thin as possible. The reason for this is that the more the thickness ~~is~~, the more the luminous intensity of the EL light-emitting sheet 10 decreases. The thickness is practically preferable to be about 1-2 μm as the effective value. Hereupon, the "effective value" means the size of the thickness of the top coat layer 15 placed on the uppermost part of the EL light-emitting layer 14. It is sufficient for obtaining the thickness of about 1-2 μm as the effective

value to make the coating value of the thickness about 5-8 μm. Hereupon, the "coating value" means the thickness of the protection layer 15 when the coating is performed on a surface having no irregularities.

Please replace the paragraph beginning on page 16, line 10 and ending on page 17, line 7 as follows:

Then, by the attachment of the electrically conductive material 30 on the top coat layer, an AC electric field is formed in the EL light-emitting layer 14, and only the portion thereof just under the attached electrically conductive material 30 emits light locally. That is, since the EL light-emitting layer 14 has a high dielectric constant, a circuit composed of the first electrode 12a, the EL light-emitting layer 14, the electrically conductive material 30, the EL light-emitting layer 14, the second electrode 12b and the like is formed to create an AC electric field in the EL light-emitting layer 14. Then, the portion of the EL light-emitting layer just under the attachment part of the electrically conductive material 30 emits light. On the other hand, the intensity of the AC electric field at the ~~rest~~remaining portion of the EL light-emitting layer 14 just under the part where the electrically conductive material 30 is not attached is insufficient for the EL light-emitting layer 14 to emit light, and consequently the ~~rest~~remaining portion does not emit light. The thickness and the dielectric constant of the EL light-emitting layer 14 or the like are set in order that the portion of the EL light-emitting layer just under the attached electrically conductive material 30 may emit light selectively.

Please replace the paragraph beginning on page 17, line 19 and ending on page 18, line 3 as follows:

According to the present embodiment, an AC electric field is formed at the portion of the EL light-emitting layer 14 just under the attached electrically conductive material 30, and only the portion locally emits light. ~~This thing indicates that~~Thus, when the electrically conductive material 30 is attached to the top coat layer 15 in the same pattern as a desired pattern, a light ~~emitting~~emission with the desired pattern can be obtained. Consequently, an EL light emitting sheet 10 with which a user can easily produce a desired light emitting pattern can be provided.

Please replace the first full paragraph on page 18, beginning on line 4 and ending on line 18 as follows:

The electrode layer 12 of the EL light emitting sheet 10 is, as described above, formed by deposition of a metal. When it is intended to form the electrode layer 12 by, for example,

deposition of aluminum, the thickness of the electrode layer 12 is preferably about 300-1,000 Å (10-10 m), more preferably about 400-800 Å. Since the electrode layer 12 is very thin and is formed by deposition of aluminum, if a user, for example, scratches the EL light emitting sheet with a cutter or strikes a nail, only a part of the electrode layer 12 contacting ~~with~~ the cutter or the nail, is melted almost simultaneously with the shortage. Consequently, the worst case where the whole of the electrode layer 12 is shorted is not generated, and the user does not receive electric shock.

Please replace the paragraph beginning on page 19, line 8 and ending on page 20, line 4 as follows:

In the drawing board 50, a main body 59 with a shape like a board having a predetermined thickness holds the EL light emitting sheet 51 which is provided in the inside of the main body 59. The EL light emitting sheet 51 having the top coat layer 15 on the top surface thereof is exposed from an opening 59a. The drawing board 50 is configured to be provided with a highlight pen 53 having a pen point 53a made of ~~an impregnating~~a material impregnating the electrically conductive material 30 using electrically conductive ink which includes a fluorescent material, holders 52 for holding the highlight pens 53 ~~in the state of standing up~~upright, a tray 54 having a shape of a recess capable of holding the highlight pens 53 ~~in the state of lying on their sides in the inside of the tray 54~~, a removal member 58 carrying a sponge 58a which is superior in water absorbing property, for removing the electrically conductive member 30 from the top surface of the EL light emitting sheet 51, a tray 57 for holding the removal member 58 to allow the removal member to be taken out thereof, a change-over switch 55 for switching the light-emitting modes, and a power supply switch 56.

Please replace the paragraph beginning on page 21, line 19 and ending on page 22, line 10 as follows:

When a predetermined voltage (AC voltage) is applied to each of the electrodes 71a-76a, each of the electrode pairs 71-76 takes the state capable of forming a closed circuit. To put it more concretely, when the electrically conductive material 30 is coated on the drawing screen 61 while the voltage is applied to all of the electrodes 71a-76a, a closed circuit is formed between the electrically conductive material 30 and an electrode pair at any place on the drawing screen 61 through the EL light-emitting layer 14 and the like. However, when the voltage is applied to only a part of the electrodes 71a-76a, only the part of the electrode pair corresponding to the electrode to which the voltage is applied can form a closed circuit (~~the~~

~~sate~~this state may be referred to as a "closed circuit formation possible state", and a state other than the above-mentioned state may be referred to as a "closed circuit formation impossible state" in the present specification).

Please replace the paragraph beginning on page 22, line 22 and ending on page 23, line 9 as follows:

FIG. 5 is a functional block diagram of the drawing board 50. In the figure, the drawing board 50 is provided with a control unit 110 composed of a central processing unit (CPU), a random access memory (RAM), a read only memory (ROM) and the like, a battery 130 composed of dry cells, and a voltage application unit 120. The voltage application unit 120 includes an inverter circuit 121 for converting a direct-current (DC) voltage supplied from the battery 130 to an AC voltage, and a booster circuit (not shown). The voltage application unit 120 applies an effective AC voltage of about 100-300 V between the earth line 70b of the electrode pattern 70 and each of the electrode pairs 71-76 according to a control signal input from the control unit 110.

Please replace the paragraph beginning on page 23, line 26 and ending on page 24, line 7 as follows:

The entirely light-emitting mode is a mode in which ~~an~~ voltage is applied to all of the electrode pairs 71-76 simultaneously and continuously. In other words, the mode is one in which all of the electrode pairs 71-76 are in the closed circuit formation possible state. If the electrically conductive material 30 is coated ~~on~~ all over the drawing screen 61, the whole surface of the drawing screen 61 continuously emits light.

Please replace the first full paragraph on page 24, beginning on line 9 and ending on line 18 as follows:

The entirely blinking mode is a mode in which a voltage is applied to all of the electrode pairs 71-76 simultaneously and intermittently. In other words, the mode is one in which all of the electrode pairs 71-76 simultaneously take the closed circuit formation possible state or the closed circuit formation impossible state alternately at predetermined time gaps. If the electrically conductive material 30 is coated ~~on~~ all over the drawing screen 61, the whole surface of the drawing screen 61 intermittently emits light.

Please replace the paragraph beginning on page 24, line 20 and ending on page 25, line 13 as follows:

The sequentially light-emitting mode is a mode in which a voltage is accumulatively applied to the electrode pairs 71-76 in the order of their arrangement. In other words, the mode is one in which the electrode pairs 71-76 which have been in the closed circuit formation impossible state sequentially become the closed circuit formation possible state at predetermined time gaps. If the electrically conductive material 30 is coated ~~on~~ all over the drawing screen 61, an area ~~part~~ of one sixth of the whole area of the drawing screen 61 sequentially emits light (since there are six electrode pairs), and the area emitting light gradually increases. Incidentally, after all of the electrode pairs have become the closed circuit formation possible state, the application of the voltage to all of the electrode pairs 71-76 is stopped after a predetermined time to make all of the electrode pairs 71-76 be in the closed circuit formation impossible state. Thereby, the electrode pairs 71-76 return to the initial state, and the execution of the sequential light-emitting is repeated.

Please replace the paragraph beginning on page 25, line 15 and ending on page 25, line 1 as follows:

The wavy light-emitting mode is a mode in which a voltage is intermittently applied to the electrode pairs 71-76 in the order of their arrangement. In other words, the mode is one in which each of the electrode pairs 71-76 repeatedly transits the closed circuit formation possible state and the closed circuit formation impossible state with a predetermined time lag. If the electrically conductive material 30 is coated ~~on~~ all over the drawing screen 61, each area ~~part~~ of one sixth of the whole area of the drawing screen 61 sequentially emits light and does not emit light, and consequently the parts emitting light ~~operates to~~ appear as if they were moving while waving.

Please replace the first full paragraph on page 26, beginning on line 4 and ending on line 10 as follows:

As described above, in the drawing board 50, it is possible to draw a light emitting chart by applying the electrically conductive material 30 easily with the highlight pen 53. Moreover, it is also possible to remove the coated electrically conductive material 30 easily. Consequently, the ~~repeating~~repeated drawing of charts for light emitting can easily be realized.

Please replace the second full paragraph on page 26, beginning on line 11 and ending on line 19 as follows:

Furthermore, a plurality of electrode pairs ~~are~~is formed in the EL light emitting sheet, and the control unit 110 controls the execution of the voltage application to each electrode pair. Thereby, light-emitting modes for light emitting charts can variously be changed, which makes it possible to realize interesting light emissions together with the aid of the variation of the places where the electrically conductive material 30 is coated.

Please replace the first full paragraph on page 27, beginning on line 4 and ending on line 17 as follows:

As shown in FIG. 6, the EL light emitting sheet 10a according to the variation 1 has a configuration in which a base layer 11, an electrode layer 12, a waterproof layer 13, a light reflecting layer 16, an EL light emitting layer 14 and a top coat layer 15 are laminated in this order. Since each structure of the base layer 11, the electrode layer 12, the waterproof layer 13, the EL light-emitting layer 14 and the top coat layer 15 is substantially the same as that of the EL light emitting sheet 10 in the embodiment of the present invention, the same reference numeral as that of the sheet 10 is attached to each element and the description for them ~~are~~is omitted. Mainly, the light-reflecting layer 16 will be described in the following.

Please replace the second full paragraph on page 28, beginning on line 12 and ending on line 18 as follows:

Although in the variation 1, the waterproof layer 13 is arranged between the electrode layer 12 and the light-reflecting layer 16, in the variation 2, the waterproof layer 13 is arranged between the light-reflecting layer 16 and the EL light-emitting layer 14. In this case, the top coat layer 15 ~~are~~is not necessarily required.

Please replace the paragraph beginning on page 28, line 21 and ending on page 29, line 4 as follows:

Variation 3 is one that a further change is given to variation 1. The EL light emitting sheet according to the variation 3 has a structure in which a base layer 11, one of first and second electrodes 12a and 12b, a waterproof layer 13, the other of first and second electrodes 12a and 12b, a light reflecting layer 16, and an EL light-emitting layer 14 are laminated in this order. In this case, the top coat layer 15 ~~are~~is not necessarily required, and the light reflecting layer 16 may be omitted.

Please replace the first full paragraph on page 29, beginning on line 7 and ending on line 14 as follows:

Variation 4 is one that a further change is given to variation 1. The EL light emitting sheet according to the variation 4 has a structure in which a base layer 11, one of first and second electrodes 12a and 12b, a light reflecting layer 16, a waterproof layer 13, the other of first and second electrodes 12a and 12b, and an EL light-emitting layer 14 are laminated in this order. In this case, the top coat layer 15 ~~are~~is not necessarily required.

Please replace the second full paragraph on page 29, beginning on line 17 and ending on line 25 as follows:

Variation 5 is one that a further change is given to the EL light emitting sheet 10, 10a or 51 according to the embodiment, or one of variations 1-4. The EL light emitting sheet according to the variation 5 has a structure in which the EL light-emitting layer 14 and/or the light reflecting layer 16 has a permeation prevention function to water or the like, instead of or in addition to the waterproof layer 13. In this case, the top coat layer 15 ~~are~~is not necessarily required.

Please replace the paragraph beginning on page 29, line 26 and ending on page 30, line 17 as follows:

The EL light-emitting layer 14 with the permeation prevention function is composed of, for example, ~~an~~ organic or inorganic EL light-emitting elements being phosphor particles or phosphorescent particles, and a transparent resin binder for fixing the EL light-emitting elements in the state of being dispersed. The variation 5 uses a resin having a waterproof property or a moisture-proof property as the resin binder. The following resins are used. That is, the resins are, for example, ~~for example,~~ a fluorocarbon resin such as a 4-fluorinated ethylene resin, fluororubber and the like; a silicon resin such as silicon rubber and the like; the other epoxy resins; an acrylic resin; a urethane resin; a polyester resin; and a resin having a high sealing property such as an ethylene-vinyl acetate copolymer and the like. These resins are cured by a method such as the UV curing, the IR curing, the two-liquid curing, the heat curing and the like.

Please replace the first full paragraph on page 31, beginning on line 5 and ending on line 11 as follows:

According to the variation 4~~5~~, since the light-reflecting layer 16 prevents the permeation of water and the like, the generation of electrolysis between the first electrode 12a and the

second electrode 12b can be prevented. Moreover, the snapping (damage) of a wire caused by the oxidation of the first electrode 12a and the second electrode 12b can be prevented.

Please replace the first full paragraph on page 32, beginning on line 2 and ending on line 12 as follows:

Incidentally, the configuration is used in the case where the EL light emitting sheet is incorporated in a case body or the like. In the case where the EL light emitting sheet is incorporated in the case body as described above, the back surface side is generally sealed not to be exposed. Consequently, it is needless to consider the attachment of water and the like from the back surface side. If necessary, it is enough to coat the ~~exposing~~exposed electrodes with a resin having the permeation prevention function, or to perform ~~the~~ alumite processing of the ~~exposing~~exposed electrodes.

Please replace the second full paragraph on page 32, beginning on line 13 and ending on line 17 as follows:

Incidentally, although the first electrode 12a and the second electrode 12b are provided on the back surface of the substrate sheet in the variation 6, the first electrode 12a and the second electrode 12b may be provided with ~~putting~~ the substrate sheet between them.

Please replace the paragraph beginning on page 34, line 12 and ending on page 35, line 4 as follows:

A signboard 900 according to a variation of the EL light emitting system is shown in FIGS. 8A and 8B. The signboard 900 is provided with an EL light emitting sheet 910 therein. The EL light emitting sheet 910 includes rectilinearly arranged four electrode pairs formed by depositing aluminum on a base layer 11. Buttons 931, 932, 933 and 934 (hereinafter referred to as buttons 930 comprehensively) corresponding to each of the electrode pairs 921, 922, 923 and 924 (hereinafter referred to as electrode pairs 920 comprehensively) are arranged on one side of a drawing screen, i.e., the top surface of the top coat layer of the EL light emitting sheet. The EL light emitting sheet 910 and the signboard 900 have the same configuration as those of the EL light emitting sheet 10 and the drawing board 50 except the arrangement ~~configuration~~ of the electrode pairs. The buttons 930 are made to be toggle switches. The buttons 930 are configured to output pushed signals when the buttons 930 are pushed down.

Please replace the paragraph beginning on page 35, line 20 and ending on page 36, line 1 as follows:

FIG. 8B is a view showing an embodiment of the signboard 900 in the state in which the button 931 is pushed down. Since the electrode pair 921 is in the ~~state of~~ closed circuit formation possible state, the portion of the characters indicating "TODAY'S BARGAIN!", which have been drawn with the electrically conductive material 30, emit light in the region of the drawing screen where the electrode pair 921 is arranged.

Please replace the first full paragraph on page 37, beginning on line 3 and ending on line 13 as follows:

The EL light emitting display system does not work only by turning the power supply switch 1256 on. Only when both the power supply switch 1256 and the power supply control switch are turned on, can the system ~~does work to become in~~enter a closed circuit formation possible state. Therefore, even if the liquid electrically conductive material 30 penetrates into the EL light emitting sheet 1100 to short-circuit the electrode pair, no AC current ~~are~~is applied to the electrode pair unless the cover 1110 is closed. Accordingly, it is possible to enhance the safety.

Please replace the paragraph beginning on page 37, line 26 and ending on page 38, line 10 as follows:

(2) In the variation 2 of EL light emitting display system, a projection 1111 is annexed on the back side of the cover 1110, and when the cover 1110 is closed, the system ~~works to become in a~~enters the closed circuit formation possible state. However, opening and closing of the cover 1110 may be detected by any one of appropriate mechanical, electrical and optical manners, to become in a closed circuit formation possible state only when the cover 1110 is closed. Alternatively, a structure in which the power supply switch 1256 is locked ~~during~~when the cover 1110 is opened, may also be used.

Please replace the second full paragraph on page 38, beginning on line 19 and ending on line 24 as follows:

The entire disclosures of Japanese Patent Application No. Tokugan 2002-254617 which was filed on August 30, 2002, and Japanese Patent Application No. Tokugan 2003-122787 which was filed on April 25, 2003, including specification, claims, drawings and summary are incorporated herein by reference in ~~its entirety~~their entireties.